

An extension of time to respond to the Office Action is respectfully requested. A Petition for Extension of Time and the appropriate fee are being filed concurrently with this Amendment.

In the Claims

Please amend Claims 10, 11, 13, 41, 46 and 50-52.

Sub C

10. (Amended) The method of Claim 2 further including the step of:
re-requesting, by the member node, the change to the cluster definition if
after a period of time, the change is not made to the cluster definition.

Sub C

11. (Twice Amended) An apparatus for updating a cluster definition for a network
cluster having at least one member node, comprising:
a shared repository coupled to the at least one member node of the cluster, the
repository including the cluster definition;
a member node to request a change to the cluster definition by sending a proposed
change to the shared repository; and
a coordinator node, selected from the at least one member node of the network
cluster, to update the cluster definition with the proposed change.

Sub C

13. (Twice Amended) A computer program product for maintaining a cluster definition for a
network cluster having at least one member node, the computer program product
comprising:
a computer usable medium having computer readable program code thereon,
including program code for:
coupling the at least one member node to a shared repository;
storing a cluster definition for the network cluster in the shared repository;
selecting a coordinator node from the at least one member node of the
network cluster;
requesting a change to the cluster definition by sending a proposed change
to the shared repository; and

Sub C 7

directing the coordinator node to update the cluster definition in response to the requested change to the cluster definition.

Sub C 41

41. (Amended) An apparatus for maintaining a cluster definition for a network cluster having at least one member node, comprising:

a shared repository coupled to the at least one member node of the cluster, the shared repository including the cluster definition and a proposed change to the cluster definition;

a coordinator node, selected from the at least one member node of the network cluster, to update the cluster definition with the proposed change; and

a potential member node to access the cluster definition on the shared repository.

Sub C 46

46. (Amended) A computer program product for maintaining a cluster definition for a network cluster having at least one member node, the computer program product comprising:

a computer usable medium having computer readable program instructions thereon, including instructions for:

coupling the at least one member node to a shared repository;

storing a cluster definition for the network cluster in the shared repository;

selecting a coordinator node from the at least one member node of the network cluster;

requesting a change to the cluster definition by sending a proposed change to the shared repository;

directing the coordinator node to update the cluster definition to reflect the requested change; and

directing a potential member node to access the cluster definition on the shared repository.

50. (Amended) A system for maintaining a cluster definition for a network cluster having at least one member node, the system comprising:

- Guo*
- ~~a means for coupling the at least one member node to a shared repository;~~
- ~~a means for storing a cluster definition for the network cluster in the shared repository;~~
- ~~a means for selecting a coordinator node from the at least one member node of the network cluster;~~
- ~~a means for requesting a change to the cluster definition by sending a proposed change to the shared repository;~~
- ~~a means for the coordinator node to update the cluster definition to reflect the requested change; and~~
- ~~a means for a potential member node to access the cluster definition on the shared repository.~~

51. (Amended) A method for maintaining a cluster definition for a network cluster having at least one member node, the method comprising:

- ~~coupling the at least one member node to a shared repository;~~
- ~~storing a cluster definition for the network cluster in the shared repository;~~
- ~~selecting a coordinator node from the at least one member node of the network cluster;~~
- ~~at a member node, requesting a change to the cluster definition by:~~
 - ~~sending a proposed change to a scratch area of the shared repository;~~
 - ~~setting a valid bit associated with the scratch area;~~
 - ~~verifying the valid bit;~~
 - ~~setting an update flag;~~
 - ~~modifying the cluster definition to reflect the requested change; and~~
 - ~~logging a progress of modifying the cluster definition in a log file in parallel with modifying the cluster definition;~~
 - ~~incrementing a version number associated with the shared repository; and~~
 - ~~clearing the valid bit and the update flag; and~~
- ~~from the coordinator node, updating the cluster definition to reflect the requested change.~~

52. (Amended) A method for maintaining a cluster definition for a network cluster having at least one member node, the method comprising:

coupling the at least one member node to a shared repository;

storing a cluster definition for the network cluster in the shared repository;

selecting a coordinator node from the at least one member node of the network cluster;

at a member node, requesting a change to the cluster definition by sending a proposed change to the shared repository;

from the coordinator node, updating the cluster definition to reflect the requested change;

requesting, by a potential member node, membership in the network cluster; and

accessing, by the potential member node, the cluster definition on the shared repository, for each potential member node accessing the cluster definition:

determining a version number of the shared repository to yield a first version number;

reading the cluster definition;

re-determining a version number of the shared repository to yield a second version number;

comparing the first version number with the second version number; and

repeating the step of accessing the cluster definition until the first version number equals the second version number.

Amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages i - iv).